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## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

Claim 1 (currently amended): An integrated circuit capable of supporting a plurality of host processor families comprising:

a host processor belonging to a first host processor family;

a reconfigurable processor core coupled to the host processor, the reconfigurable processor core having a <u>first</u> core portion <u>having a first plurality of processors configured to process instructions belonging to the first host processor family and a second core portion having a <u>second plurality of processors</u> configured to process instructions belonging to a second host processor family; and</u>

a processor type select circuit to configure the integrated circuit to process instructions belonging to an instruction set of one of the first or second host processor families family instruction set.

Claim 2 (original): The circuit of claim 1, wherein the first host processor family comprises a processor compatible with an ARM processor family.

Claim 3 (currently amended): The circuit of claim [[1]] 2, wherein the second host processor family comprises a processor compatible with a MIPS processor family.

Claim 4 (previously presented): The circuit of claim 1, further comprising an analog portion integrated on a substrate, the analog portion including:

- a cellular radio core;
- a radio sniffer coupled to the cellular radio core;
- a short-range wireless transceiver core coupled to the cellular radio core; and
- a digital portion integrated on the substrate, including the host processor and the reconfigurable processor core.

Claim 5 (previously presented): The circuit of claim 4, wherein the reconfigurable processor core is coupled to the cellular radio core and the short-range wireless transceiver core,

the reconfigurable processor core adapted to handle a plurality of wireless communication protocols.

Claim 6 (previously presented): The circuit of claim 4, further comprising a memory array core coupled to the reconfigurable processor core.

Claim 7 (previously presented): The circuit of claim 5, wherein the plurality of wireless communication protocols includes a Bluetooth<sup>TM</sup> or IEEE802.11 protocol.

Claim 8 (previously presented): The circuit of claim 5, wherein the plurality of wireless communications protocols includes a Global System for Mobile Communications (GSM) protocol.

Claim 9 (previously presented): The circuit of claim 5, wherein the plurality of wireless communications protocols includes a General Packet Radio Service (GPRS) protocol.

Claim 10 (previously presented): The circuit of claim 5, wherein the plurality of wireless communications protocols includes an Enhance Data Rates for GSM Evolution (Edge) protocol.

Claim 11 (previously presented): The circuit of claim 1, wherein the reconfigurable processor core includes one or more digital signal processors (DSPs).

Claim 12 (previously presented): The circuit of claim 11, wherein the reconfigurable processor core includes one or more reduced instruction set computer (RISC) processors.

Claim 13 (previously presented): The circuit of claim 4, further comprising a router coupled to the host processor, the cellular radio core, and the short-range wireless transceiver core.

Claim 14 (currently amended): The circuit of claim 13, wherein the router further comprises an engine configured to track the destinations of packets and send them in [[a]] parallel through a plurality of separate pathways.

Claim 15 (previously presented): The circuit of claim 13, wherein the router is configured to send packets in parallel through a primary and secondary communication channel.

Claim 16 (currently amended): A method comprising:

processing a first instruction of a first processor family instruction set in a host processor of a system; and

switching the system to process a first instruction of a second processor family instruction set in a second core portion of a reconfigurable processor core coupled to the host processor, the reconfigurable processor core having a first core portion including a first plurality of processors configured to process instructions belonging to the first processor family instruction set and the second core portion including a second plurality of processors configured to process instructions belonging to the second processor family instruction set; and

switching the system to process a second instruction of the first processor family instruction set after processing the first instruction of the second processor family instruction set.

Claim 17 (cancel)

Claim 18 (previously presented): The method of claim 16, further comprising performing a plurality of wireless protocols using the first processor family instruction set and the second processor family instruction set.

Claim 19 (previously presented): The method of claim 16, wherein the host processor and the reconfigurable processor core are integrated in a single integrated circuit.